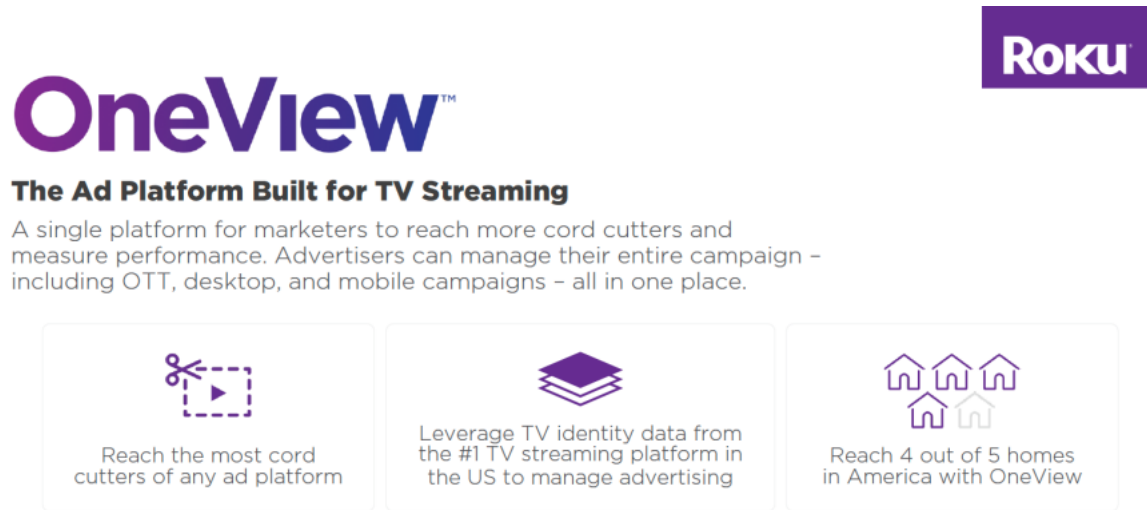
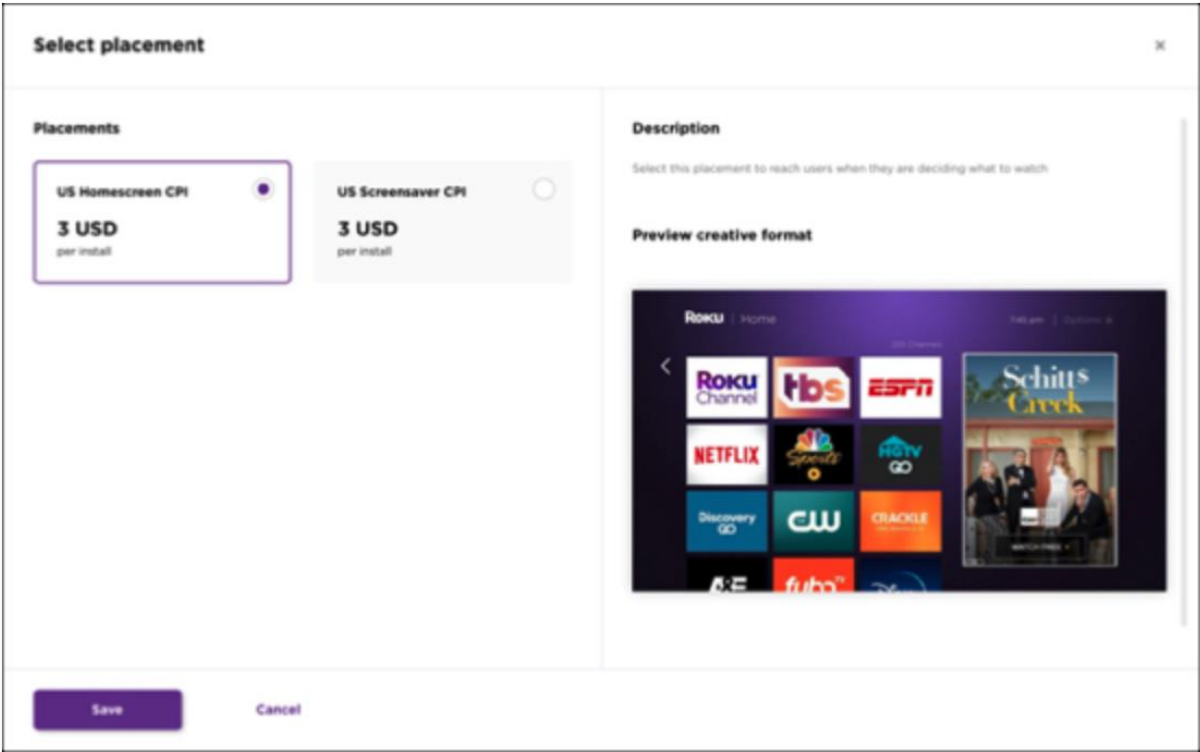


Exhibit 4

U.S. Patent No. 10,026,100 (“’100 Patent”)


Roku’s advertising platform infringes at least Claim 1 of the ’100 Patent.

Claim 1	Roku’s advertising platform
1. A method of facilitating off-site targeted Internet advertising with a first computer controlled by a proprietor of a first Internet site, which proprietor has sold, for a first price, placements of an electronic advertisement on other Internet sites, which advertisement is directed to an offering of a third-party advertiser, the method comprising automatically:	<p>To the extent the preamble is limiting, Roku’s advertising platform implements method of facilitating off-site targeted Internet advertising with a first computer controlled by a proprietor of a first Internet site, which proprietor has sold, for a first price, placements of an electronic advertisement on other Internet sites, which advertisement is directed to an offering of a third-party advertiser.</p> <p>For example, Roku’s advertising platform delivers electronic advertisements to audiences who visited a first Internet site, within ad space acquired by Roku on “second” Internet sites, as shown further below.</p> <p><i>See, e.g.:</i></p> <div><p>The screenshot displays the Roku OneView advertisement platform. At the top right is the Roku logo. The main heading is 'OneView™' in a large purple font, followed by the subtitle 'The Ad Platform Built for TV Streaming'. Below this is a descriptive paragraph: 'A single platform for marketers to reach more cord cutters and measure performance. Advertisers can manage their entire campaign - including OTT, desktop, and mobile campaigns - all in one place.' At the bottom, there are three white boxes with purple icons and text. The first box shows a scissors icon and says 'Reach the most cord cutters of any ad platform'. The second box shows a stack of books icon and says 'Leverage TV identity data from the #1 TV streaming platform in the US to manage advertising'. The third box shows four house icons and says 'Reach 4 out of 5 homes in America with OneView'.</p></div>

Claim 1	Roku's advertising platform
	<p>Source: https://info.advertising.roku.com/Oneview_Product_Guide (Roku OneView_The_Ad_Platform_Built_for_TV_Streaming_One_Sheet.pdf)</p> <p>c. Under Campaign type, select the type of metric to be used for the campaign: CPI (cost per install; for display ads only) or CPM (cost per 1,000 impressions; for display or video campaigns).</p>  <p>Source: https://developer.roku.com/docs/features/engagement/self-serve-promotions.md</p>


Claim 1	Roku's advertising platform
<p>a. with the first computer, placing a cookie on each of a plurality of visitor computers visiting the first Internet site;</p> <p>b. with the first computer, detecting those user computers of the plurality of visitor computers that have conducted a specific predetermined action on the first Internet site;</p>	<p>Roku's advertising platform automatically, with the first computer, places a cookie on each of a plurality of visitor computers visiting the first Internet site, and detects those user computers of the plurality of visitor computers that have conducted a specific predetermined action on the first Internet site.</p> <p>For example, Roku's advertising platform automatically places a cookie on visitors to a "first" Internet site that is desirable to Roku advertisers using a computer controlled by a proprietor of the first site, and also using that computer detects users that perform specific interactions with the first site.</p> <p><i>See, e.g.:</i></p> <p>2. Information from Cookies and Similar Technologies</p> <p>We and our business partners collect information on websites and in our emails using cookies, pixel tags, or similar technologies. We and our business partners, such as analytics and advertising partners, may use these technologies to collect information about your online activities over time and across different online services. For more information on how we and others use cookies and related technologies on Roku Sites, and your choices regarding the use of these technologies for tracking on the Roku Sites, please click here to review the Roku Cookies Policy.</p>



Claim 1	Roku's advertising platform
	<p>3. Activity and Usage Information on Roku Sites, Roku's Mobile Apps, Roku's Channels and Roku Devices</p> <p>We receive information about your interactions with the Roku Services, such as your browsing history, search history, search results, audio information when you use voice-enabled features, channels you access (including usage statistics such as what channels you access, the time you access them, and how long you spend viewing them), interactions with content and ads, and settings and preferences.</p> <p>When you access Roku's Channels and Roku Direct Publisher Channels, we receive information about your activities like the videos and other content you select and view within these channels. If you use the Roku Media Player channel to view your video or photo files or listen to your music files, Roku will collect data about the files viewed within the Roku Media Player, such as codecs, and other metadata of the local files you play through the Roku Media Player.</p> <p>C. Information We Receive from Third Parties</p> <p>We may receive data about you from other sources like data providers and combine it with the data that we collect from you or your use of the Roku Services. Advertisers that show ads through Roku's advertising services (our "Advertisers") may also provide data about individuals to us to personalize and measure ads through Roku's advertising services.</p> <p>Source: https://docs.roku.com/published/userprivacypolicy/en/us</p>
c. with the first computer, for each of the visitor computers detected as having conducted the specific predetermined action on the first Internet site, storing information, accessible through the cookie on that visitor computer, indicating	<p>Roku's advertising platform performs the step of, with the first computer, for each of the visitor computers detected as having conducted the specific predetermined action on the first Internet site, storing information, accessible through the cookie on that visitor computer, indicating that the visitor computer has conducted the predetermined specific action.</p> <p>For example, Roku creates computerized profile records for visitors to the "first" site, including the information accessible through the cookie such as that the visitor computer has performed the specific interaction.</p>

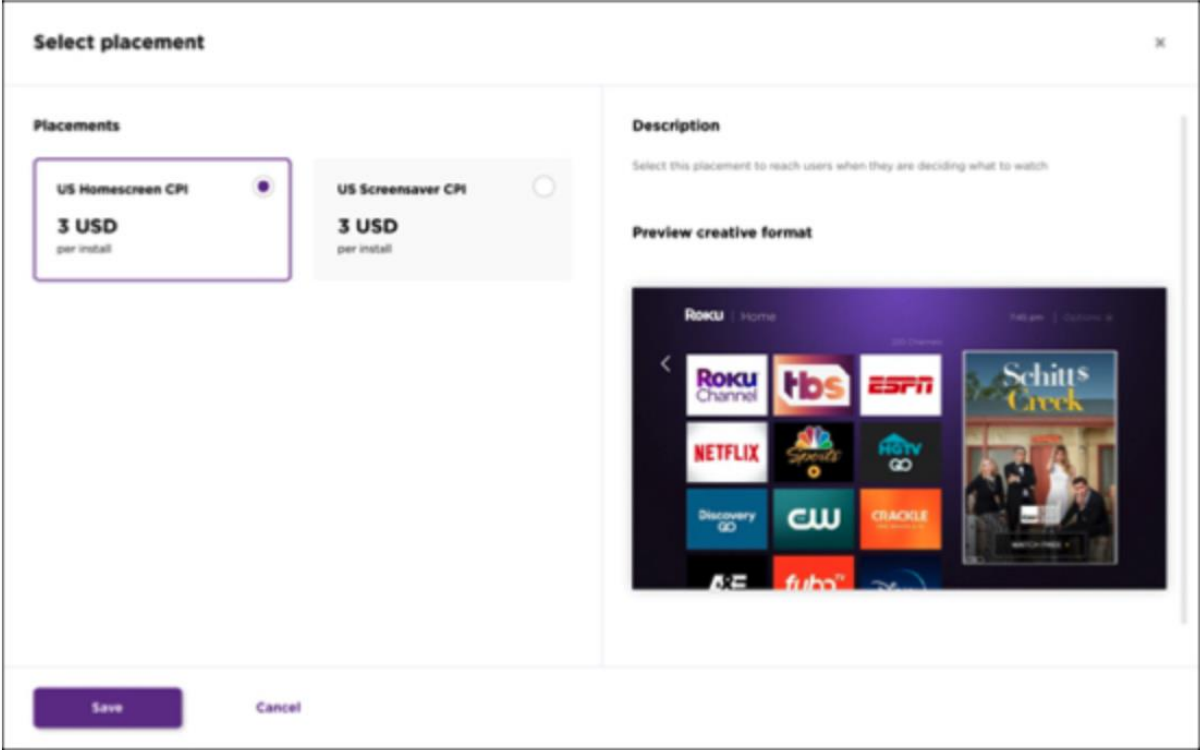
Claim 1	Roku's advertising platform
that the visitor computer has conducted the predetermined specific action;	<p><i>See, e.g.:</i></p> <div> <h2>Our Solutions</h2> <p>Leverage our proprietary segments to reach your audience on or off the Roku platform.</p> </div> <div>  </div> <div> <h3>Audiences</h3> </div> <div> <p>Reach your ideal audience through our custom proprietary segments and third party validation.</p> </div> <p>Source: https://advertising.roku.com/advertiser-solutions</p> <p>4. Advertising Services. We use your information to show you ads (including personalized ads) through the Roku Services, on Third-Party Channels, and on third-party websites, mobile apps, platforms and devices. We use your information to measure and understand the reach, viewership, and effectiveness of advertising, and provide advertising analytics and reporting. We also help Advertisers and advertising partners reach the desired audience and understand and improve their ad campaigns. We associate the browsers and devices (such as smartphones, tablets, streaming players, connected TVs, and computers) used by the same individual or household for purposes of advertising to that individual or household on different browsers or devices. This allows, for example, ads you see on your tablet to be based on activities you engaged in on your Roku TV.</p>

Claim 1	Roku's advertising platform
	<p>5. Marketing and Promotions. We use your information for marketing purposes, including sending you emails and text messages about products, events, promotions and offers from Roku or its partners or advertisers, and understanding the effectiveness of our marketing;</p> <p>1. Device Information</p> <p>We may receive information about the browser and devices you use to access the Internet, including our services, such as device types and models, unique identifiers (including, for Roku Devices, the Advertising Identifier associated with that device), IP address, operating system type and version, browser type and language, Wi-Fi network name and connection data, and information about other devices connected to the same network. For Roku Devices, we may also collect the name of the retailer to whom your Roku Device was shipped, various quality measures, error logs, software version numbers, and device status (including the status of battery-powered accessories). When you enable Bluetooth on a Roku Device, we may collect your Bluetooth usage, such as connection quality, the name of the device connected to your Roku Device, and the start and stop time of your connection.</p> <p>4. Activity, Location, and Usage Information Through Roku's Advertising Services</p> <p>We may receive information about your activities on other websites, apps, and connected devices (including Smart TVs) to which Roku provides advertising or measurement and analytics services, including the content you view, the date and time of your visits, how you interact with these websites, apps and devices, and how you interact and respond to ads. We may also receive your precise geolocation information.</p>

Claim 1	Roku's advertising platform
	<p>Source: https://docs.roku.com/published/userprivacypolicy/en/us</p> <p>2. Information from Cookies and Similar Technologies</p> <p>We and our business partners collect information on websites and in our emails using cookies, pixel tags, or similar technologies. We and our business partners, such as analytics and advertising partners, may use these technologies to collect information about your online activities over time and across different online services. For more information on how we and others use cookies and related technologies on Roku Sites, and your choices regarding the use of these technologies for tracking on the Roku Sites, please click here to review the Roku Cookies Policy.</p> <p>3. Activity and Usage Information on Roku Sites, Roku's Mobile Apps, Roku's Channels and Roku Devices</p> <p>We receive information about your interactions with the Roku Services, such as your browsing history, search history, search results, audio information when you use voice-enabled features, channels you access (including usage statistics such as what channels you access, the time you access them, and how long you spend viewing them), interactions with content and ads, and settings and preferences.</p> <p>When you access Roku's Channels and Roku Direct Publisher Channels, we receive information about your activities like the videos and other content you select and view within these channels. If you use the Roku Media Player channel to view your video or photo files or listen to your music files, Roku will collect data about the files viewed within the Roku Media Player, such as codecs, and other metadata of the local files you play through the Roku Media Player.</p>

Claim 1	Roku's advertising platform
	<p>C. Information We Receive from Third Parties</p> <p>We may receive data about you from other sources like data providers and combine it with the data that we collect from you or your use of the Roku Services. Advertisers that show ads through Roku's advertising services (our "Advertisers") may also provide data about individuals to us to personalize and measure ads through Roku's advertising services.</p> <p>Source: https://docs.roku.com/published/userprivacypolicy/en/us</p>
<p>d. later, with the first computer, in conjunction with a second computer controlling ad space on the second Internet site, detecting visitor computers visiting the second Internet site that have the cookie and with the first computer using the information accessible through the cookie to identify those of the visitor computers visiting the second Internet site that have conducted the specific predetermined action on the first Internet site;</p> <p>e. with the first computer, communicating with the second computer to cause the second computer to direct the electronic advertisement to those of the visitor computers that have been identified, as a</p>	<p>Roku's advertising platform performs the steps of, later, with the first computer, in conjunction with a second computer controlling ad space on the second Internet site, detecting visitor computers visiting the second Internet site that have the cookie and with the first computer using the information accessible through the cookie to identify those of the visitor computers visiting the second Internet site that have conducted the specific predetermined action on the first Internet site, and with the first computer, communicating with the second computer to cause the second computer to direct the electronic advertisement to those of the visitor computers that have been identified, as a result of part (d), as having conducted the specific predetermined action on the first Internet site, for display in ad space on the second Internet site by the identified visitor computers;.</p> <p>For example, Roku's advertising platform causes advertisements to be directed toward visitors of the "second" site who have previously visited the "first" site and for which the cookie indicates that those visitors performed the specified interaction with that first site.</p> <p><i>See, e.g.:</i></p> <div>  <div> <h3>In-Flight Attribution Tools</h3> <p>Optimize reach, frequency and performance across OTT, linear TV, desktop, and mobile campaigns</p> </div> </div>


Claim 1	Roku's advertising platform
<p>result of part (d), as having conducted the specific predetermined action on the first Internet site, for display in ad space on the second Internet site by the identified visitor computers.</p>	<div>  <p>Direct relationships with 80+ premium OTT publishers and exchanges</p>  <p>150+ unique 3rd party data vendors with 125,000+ segments for targeting</p> </div> <p>Source: https://info.advertising.roku.com/Oneview_Product_Guide (Roku OneView_The_Ad_Platform_Built_for_TV_Streaming_One_Sheet.pdf)</p>



Claim 1	Roku's advertising platform
	<p>c. Under Campaign type, select the type of metric to be used for the campaign: CPI (cost per install; for display ads only) or CPM (cost per 1,000 impressions; for display or video campaigns).</p> <div>  </div> <p>Source: https://developer.roku.com/docs/features/engagement/self-serve-promotions.md</p>

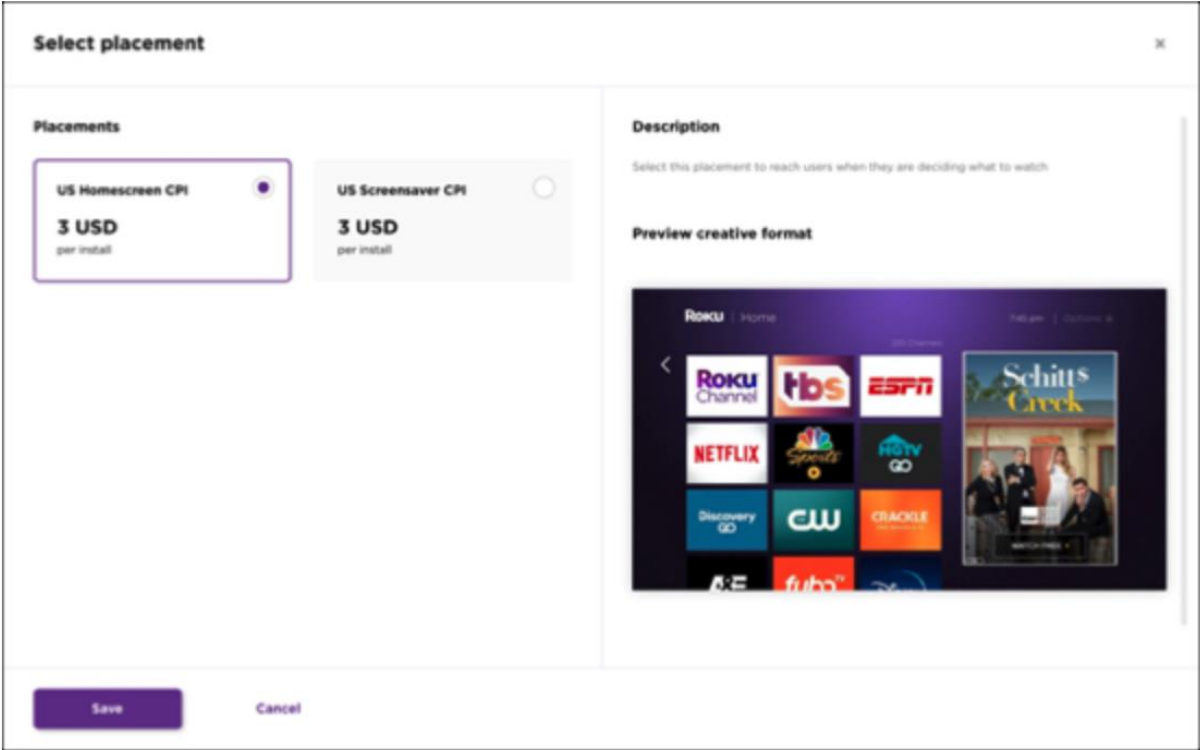
Claim 1	Roku's advertising platform
	<div> <h2>Our Solutions</h2> </div> <div> <p>Leverage our proprietary segments to reach your audience on or off the Roku platform.</p> </div> <div> </div> <div> <h3>Audiences</h3> </div> <div> <p>Reach your ideal audience through our custom proprietary segments and third party validation.</p> </div> <div> <p>Source: https://advertising.roku.com/advertiser-solutions</p> </div> <div> <p>4. Advertising Services. We use your information to show you ads (including personalized ads) through the Roku Services, on Third-Party Channels, and on third-party websites, mobile apps, platforms and devices. We use your information to measure and understand the reach, viewership, and effectiveness of advertising, and provide advertising analytics and reporting. We also help Advertisers and advertising partners reach the desired audience and understand and improve their ad campaigns. We associate the browsers and devices (such as smartphones, tablets, streaming players, connected TVs, and computers) used by the same individual or household for purposes of advertising to that individual or household on different browsers or devices. This allows, for example, ads you see on your tablet to be based on activities you engaged in on your Roku TV.</p> </div> <div> <p>5. Marketing and Promotions. We use your information for marketing purposes, including sending you emails and text messages about products, events, promotions and offers from Roku or its partners or advertisers, and understanding the effectiveness of our marketing;</p> </div>

Claim 1	Roku's advertising platform
	<p>1. Device Information</p> <p>We may receive information about the browser and devices you use to access the Internet, including our services, such as device types and models, unique identifiers (including, for Roku Devices, the Advertising Identifier associated with that device), IP address, operating system type and version, browser type and language, Wi-Fi network name and connection data, and information about other devices connected to the same network. For Roku Devices, we may also collect the name of the retailer to whom your Roku Device was shipped, various quality measures, error logs, software version numbers, and device status (including the status of battery-powered accessories). When you enable Bluetooth on a Roku Device, we may collect your Bluetooth usage, such as connection quality, the name of the device connected to your Roku Device, and the start and stop time of your connection.</p> <p>4. Activity, Location, and Usage Information Through Roku's Advertising Services</p> <p>We may receive information about your activities on other websites, apps, and connected devices (including Smart TVs) to which Roku provides advertising or measurement and analytics services, including the content you view, the date and time of your visits, how you interact with these websites, apps and devices, and how you interact and respond to ads. We may also receive your precise geolocation information.</p> <p>Source: https://docs.roku.com/published/userprivacypolicy/en/us</p>

Claim 1	Roku's advertising platform
	<p>2. Information from Cookies and Similar Technologies</p> <p>We and our business partners collect information on websites and in our emails using cookies, pixel tags, or similar technologies. We and our business partners, such as analytics and advertising partners, may use these technologies to collect information about your online activities over time and across different online services. For more information on how we and others use cookies and related technologies on Roku Sites, and your choices regarding the use of these technologies for tracking on the Roku Sites, please click here to review the Roku Cookies Policy.</p> <p>3. Activity and Usage Information on Roku Sites, Roku's Mobile Apps, Roku's Channels and Roku Devices</p> <p>We receive information about your interactions with the Roku Services, such as your browsing history, search history, search results, audio information when you use voice-enabled features, channels you access (including usage statistics such as what channels you access, the time you access them, and how long you spend viewing them), interactions with content and ads, and settings and preferences.</p> <p>When you access Roku's Channels and Roku Direct Publisher Channels, we receive information about your activities like the videos and other content you select and view within these channels. If you use the Roku Media Player channel to view your video or photo files or listen to your music files, Roku will collect data about the files viewed within the Roku Media Player, such as codecs, and other metadata of the local files you play through the Roku Media Player.</p>

Claim 1	Roku's advertising platform
	<p>C. Information We Receive from Third Parties</p> <p>We may receive data about you from other sources like data providers and combine it with the data that we collect from you or your use of the Roku Services. Advertisers that show ads through Roku's advertising services (our "Advertisers") may also provide data about individuals to us to personalize and measure ads through Roku's advertising services.</p> <p>Source: https://docs.roku.com/published/userprivacypolicy/en/us</p>
<p>f. with the first computer, causing a proprietor of the second Internet site to receive revenue, as a result of part (e), in an amount less than the first price, for display of the advertisement;</p> <p>g. wherein the proprietor of the first Internet site retains at least part of the difference between the first price and the revenue received by the proprietor of the second Internet site.</p>	<p>Roku's advertising platform performs the step of, with the first computer, causing a proprietor of the second Internet site to receive revenue, as a result of part (e), in an amount less than the first price, for display of the advertisement, wherein the proprietor of the first Internet site retains at least part of the difference between the first price and the revenue received by the proprietor of the second Internet site.</p> <p>For example, Roku automatically receives payment for the ad directed to the user of the "second" site, and compensation for that advertisement's display is automatically divided between Roku and the owner of the "first" site.</p> <p>See, e.g.:</p> <div>  <div> <h3>In-Flight Attribution Tools</h3> <p>Optimize reach, frequency and performance across OTT, linear TV, desktop, and mobile campaigns</p> </div> </div>

Claim 1	Roku's advertising platform
	<div>  <p>Direct relationships with 80+ premium OTT publishers and exchanges</p> </div> <div>  <p>150+ unique 3rd party data vendors with 125,000+ segments for targeting</p> </div> <p>Source: https://info.advertising.roku.com/Oneview_Product_Guide (Roku OneView_The_Ad_Platform_Built_for_TV_Streaming_One_Sheet.pdf)</p>

Claim 1	Roku's advertising platform
	<p>c. Under Campaign type, select the type of metric to be used for the campaign: CPI (cost per install; for display ads only) or CPM (cost per 1,000 impressions; for display or video campaigns).</p>  <p>Source: https://developer.roku.com/docs/features/engagement/self-serve-promotions.md</p>